

REMARKS

Reconsideration of this application and the rejection of claims 1, 3-9 and 11-14 are respectfully requested. Applicant has attempted to address every objection and ground for rejection in the Office Action dated January 18, 2006 (Paper No. 011106) and believes the application is now in condition for allowance. The claims have been amended to more clearly describe the present invention.

Claims 1, 3-9 and 11-14 stand rejected under 35 U.S.C. §102(b) as being anticipated by Gonda et al. (U.S. Pat. No. 2,655,978). Gonda discloses a method and apparatus for manufacturing corrugated plastic laminates. The machine includes a plurality of arc-shaped or bowed-out shafts located on both upper and lower sides of the conveyor belt. Each of the plurality of shafts includes a plurality of feed wheels that are axially adjustable along the shaft. Each shaft is comprised of several straight sections arranged end-to-end across the machine, forming the arcuate or bow-shaped arrangement. (FIGs. 13, 13a, 19 and 32). Wheels of opposing axles are placed in tongue-in-groove engagement to form creases or folds in the sheet-fed laminate. (FIGs. 20 and 21).

In contrast, amended claim 1 now recites, among other things, “a first integrally formed elongate shaft secured to the support frame and having a first plurality of axially spaced disks; a second integrally formed elongate shaft secured to the support frame and having a second plurality of axially spaced disks...”

Applicant submits that as amended, claim 1 is patentably distinct from Gonda. Specifically, the shafts in Gonda are formed of a plurality of straight sections arranged end-to-end across the machine. (Col. 19, ll. 11-14; FIG. 13). Further, Applicant submits that there is no incentive or suggestion to modify Gonda to include an integrally formed shaft as recited in amended claim 1, because the shafts in Gonda are specifically built to form an arcuate or forwardly bow-shaped arrangement, where each of the shaft segments includes a feed wheel. (Col. 19, ll. 13-16).

Claim 9 has also been amended, and now recites, among other things, "said first and second support shafts positioned relative to each other so that said first plurality of relatively large diameter disks are intermeshed with said second plurality of relatively large diameter disks, said intermeshed relationship creating a close, yet relatively rotational tolerance between adjacent disks of said opposing first and second support shafts for self cleaning...said first and second pluralities of relatively large diameter disks being uniformly shaped; and said first and second pluralities of relatively small diameter disks being uniformly shaped."

Applicant submits that as amended, claim 9 is patentably distinct from Gonda. Specifically, Gonda fails to disclose or suggest an intermeshed relationship between the disks on adjacent shafts, where the disks are intermeshed for self-cleaning purposes. Indeed, Gonda fails to recognize the problem of slurry prematurely setting and adhering to the disks, causing slurry build-up on the disks.

Further, in Gonda the feed wheels on one shaft are distinctly shaped from the wheels on another shaft, in order to properly form the corrugations on the material as the material passes through the machine. For example, in Gonda, the wheels 10 have a peripheral groove 101 of very shallow V-section, while the wheels 10' have a V-shaped peripheral groove 101' that is somewhat deeper in comparison. (Col. 20, ll. 24-29). Applicant further submits that there is no incentive or suggestion to modify Gonda as recited in amended claim 9, because such a modification would prevent the corrugations from being formed as desired.

Finally, Applicant has amended claim 14 to recite, among other things, "a first integrally formed elongate support shaft secured to the frame and having a first plurality of relatively large diameter axially aligned and axially fixed disks stacked axially along said shaft in between a first plurality of relatively small diameter axially aligned and axially fixed disks; a second integrally formed elongate support shaft secured to the frame and having a second plurality of relatively large diameter axially aligned and axially fixed disks stacked axially along said shaft in between a first plurality of relatively small diameter axially aligned and axially fixed disks; said first and second support shafts positioned relative to each other to be horizontally aligned and so that said first plurality of relatively large diameter disks are intermeshed with said second plurality of relatively large diameter disks, said intermeshed relationship creating a close, yet relatively rotational tolerance between adjacent disks of said opposing first and second support shafts for self cleaning; each of said first plurality of relatively

large diameter disks overlapping a corresponding one of said second plurality of relatively large diameter disks approximately the length of a radius of said large diameter disks; peripheries of said first and second pluralities of relatively large diameter disks being in close proximity to corresponding peripheries of said opposed relatively small diameter disks for preventing said slurry from becoming caught between said relatively large diameter disks and said relatively small diameter disks...”

Applicant submits that as amended, claim 14 is patentably distinct from Gonda. Specifically, Gonda discloses feed wheels that are axially adjustable along their respective segments of the shaft. (Col. 21, ll. 5-15). Gonda in FIG. 6 discloses intermeshed sets of disks being horizontally misaligned. Further, Gonda fails to recognize the problem of slurry build-up on the disks, and accordingly fails to disclose or suggest disks having close peripheries for preventing preset slurry particles from forming and/or becoming caught between the disks.

Applicant submits that the arrangement of the relatively large and small disks provides a kneading action to the slurry to uniformly mix the fibers with the slurry and to be self-cleaning, which minimizes the opportunity for the slurry to clog or become trapped in the device. (p. 10, ll. 13-19). Applicant contends that such an arrangement is superior to the arrangement in Gonda, because the spaces between the wheels in Gonda can allow larger preset chunks of slurry to form and become embedded into the slurry, preventing uniformity of the mixture and impairing the appearance and/or strength characteristics of the board.

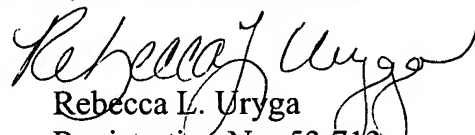
Further, in the arrangement disclosed in Gonda, such chunks can form on the wheels and prematurely set, requiring the line to shut down so that the wheels can be cleaned. (p. 3, ll. 7-13).

Applicant further submits that there is no incentive or suggestion to modify Gonda as recited in amended claim 14, because Gonda fails to recognize the problems of slurry build-up on the wheels and non-uniform mixing of the fibers, and also because such modification would fix the feed wheels on their respective shaft segments, contrary to Gonda's fundamental teaching. Accordingly, Applicant respectfully traverses the rejection of claims 1, 3-9 and 11-14 under 35 U.S.C. §102(b).

In view of the above amendments, the application is respectfully submitted to be in allowable form. Allowance of the rejected claims is respectfully requested. Should the Examiner discover there are remaining issues which may be resolved by a telephone interview, she is invited to contact Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

By 
Rebecca L. Uryga
Registration No. 53,743

Customer No. 24978
April 10, 2006
Suite 2500
300 S. Wacker Drive
Chicago, Illinois 60606-6501
Telephone: (312) 360-0080
Facsimile: (312) 360-9315